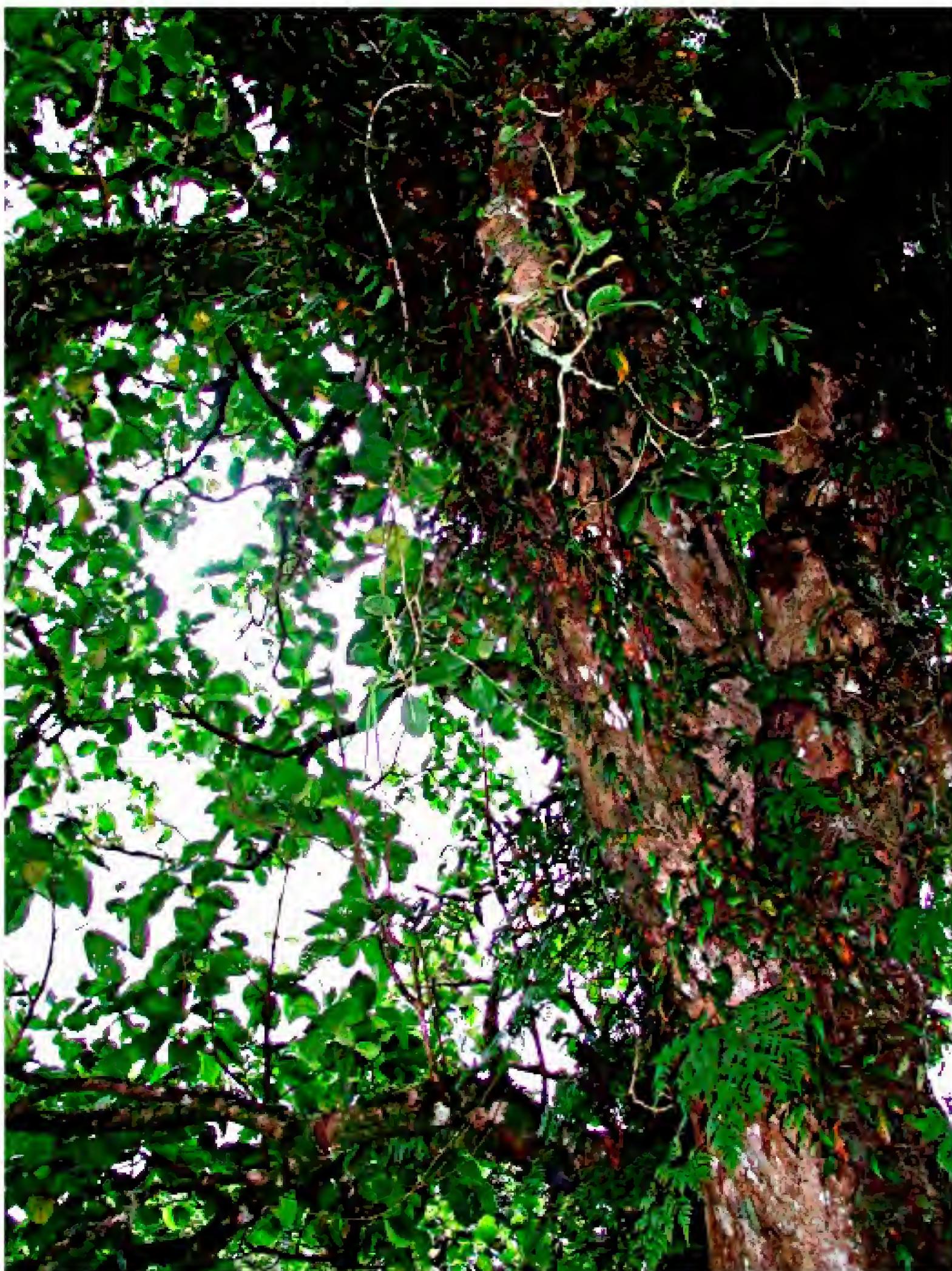


HOYA NEW



A photo taken in Samoa.

Oh There it is !
A pdf publication devoted to the Genus
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Dale Kloppenburg

Contents

When a species is collected from the wild, I feel it is wise to identify it, propagate it and name it. In this way it will eventually get it into commercial channels, be distributed to all those interested in this genus and thus be preserved. If in the future the species is lost through natural causes or forest destruction it will still be here on earth in your collection.

The following new species and subspecies are presented in PDF format with ISSN number.

On Website: <http://hoyardk.wix.com/kloppenburg> under Publications.

1. **Hoya reyisii** M. Medina and D. Kloppenburg
2. **Hoya crassicaulis subsp. capazensis** Kloppenburg

***Hoya reyesii* sp. nov. A new species of *Hoya* (Apocinaceae - Asclepiadaceae) from Mindanao Island, Philippines.**

Milton Norman Medina & Dale Kloppenburg

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Abstract: This new species found in Valencia City, Bukidnon, Central Mindanao, Philippines which differs from all known Philippine *Hoya* by its very tiny flowers, minute floral parts, and thick rounded succulent leaves. Propagated and collected by Dr. Ricardo Reyes for whom this is named.

Keywords. *Hoya reyesii*, *Hoya amoroisoae*, Mindanao.

Hoya reyesii M. Medina and D. Kloppenburg sp. nov. Holotype 00009840 (CMU) Flora of the Philippines, CMU Herbarium. Very similar to *Hoya amoroisoae* for having tiny reddish flowers but are different in many ways including thick rounded succulent leaves without prominent central margin, no red patches on the ventral surface of the leaves, smaller corolla glabrous on ventral and puberulous on the dorsal side; ovaries having no apical lip-like structure or end modifications.

Diagnosis:



Pedicel: section with calyx and ovaries showing enlarged ca. 20x, pedicels are curved of various lengths, 1 cm long, terete, glabrous 0.05 cm in diameter; 7-8 pedicle in a peduncle.

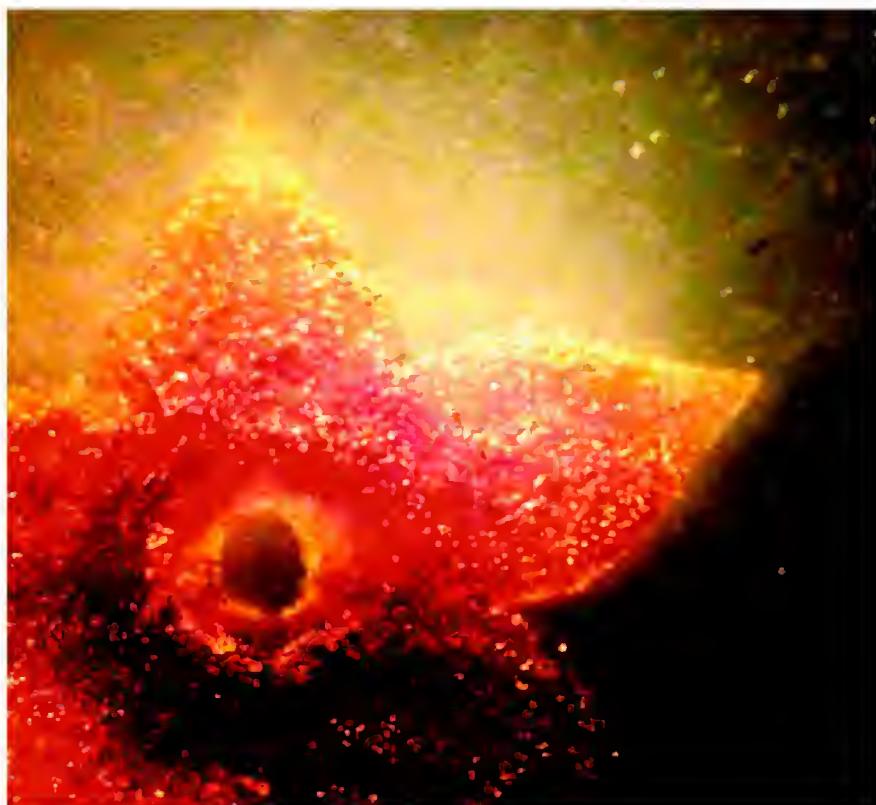
Sepals: 5 narrowly ovate, granulate outside, margin slightly ragged. Base is slightly granulate and sub-bulbous.

Ovaries: Very similar with *H. amoroisoae* having a glabrous bottle shaped ovaries but relatively smaller 0.06 cm (0.6 mm) long and base pair 0.05 cm (0.5mm) wide, apex pointed, no apical circular lip like structure, or end modifications unlike *H. amoroisoae*.

Fig. 1 Lateral view of pedicel and calyx showing two ovaries.



Fig. 2 Apical view of the ovaries showing pointed apex without lip like structure and end modification compared to *H. amorosoae*.



Corolla:

Fig. 3 Dorsal surface enlarged ca. 10x apex pointed, corolla morphometry, relatively smaller compared to *H. amorosoae*.

Measurements:	<i>H. amorosoae</i>	<i>H. reyesii</i>
Sinus – sinus	0.20 cm	0.13cm
Sinus – center	0.15 cm	0.10cm
Sinus – apex	0.22 cm	0.20cm
Apex – center	0.53 cm	0.25cm
Widest	0.21 cm	0.12cm

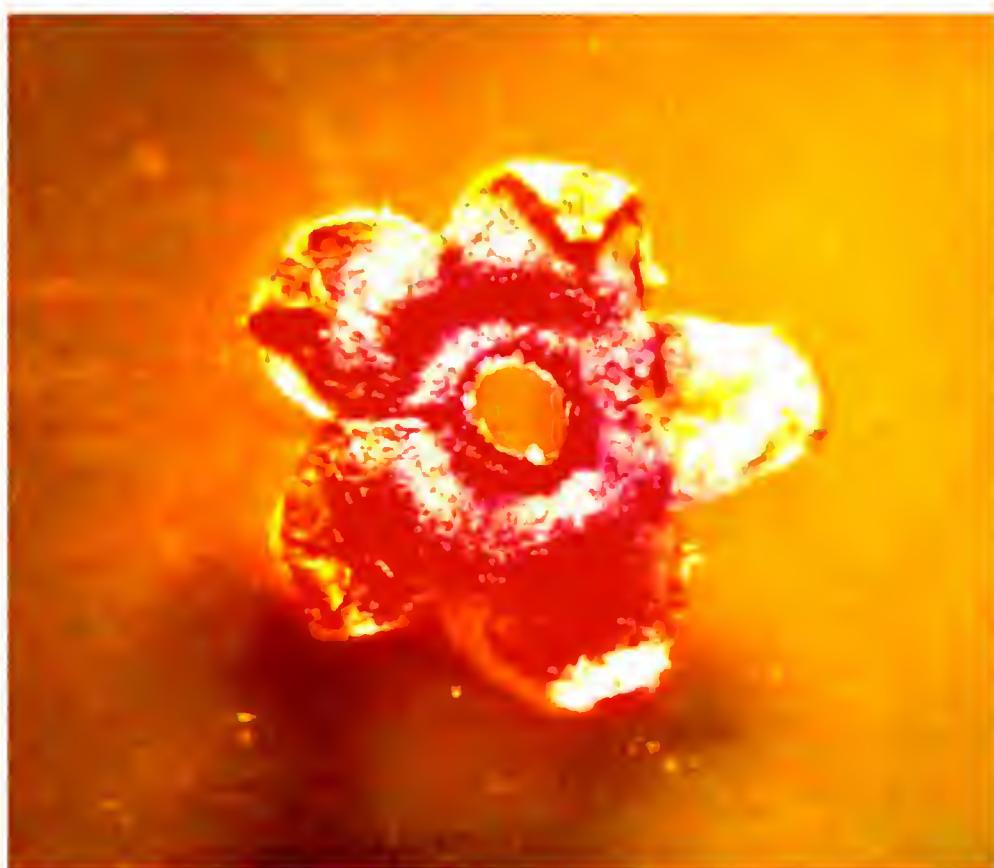


Fig. 4 Ventral surface enlarged ca.
10x glabrous.

	<i>H. amoroae</i>	<i>H. reyesii</i>
Apex – apex	0.14 cm	0.12 cm
Apex – bilobed ends	0.17 cm	0.14 cm
Widest dorsal	0.05 cm	0.04-0.5
Widest including lobes	0.09 cm	0.07-0.09



Corona: enlarge apical view.
Similar to *H. amoroae* with inner
lobes raised, spatulate and meeting
in the center, edges rounded, obtuse
outer apex having bilobed edges.

Fig. 5 Apical view of the corona (23x).



Rachis: Lateral view of the rachis end, showing equal, glabrous pedicels, 7-9 flowers in a cluster, forming a flat, negative geotropic umbel.

Fig. 6 Enlarge view lateral view of rachis.



View of flower cluster showing this Acanthostemma species has a revolute pubescent corolla with bilobed corona; flowers in the cluster almost the same size as head of matchstick, with spaces in between unlike *H. amorosoae*, red.

Fig. 7 Whole view of the cluster of the flowers.

Leaves:

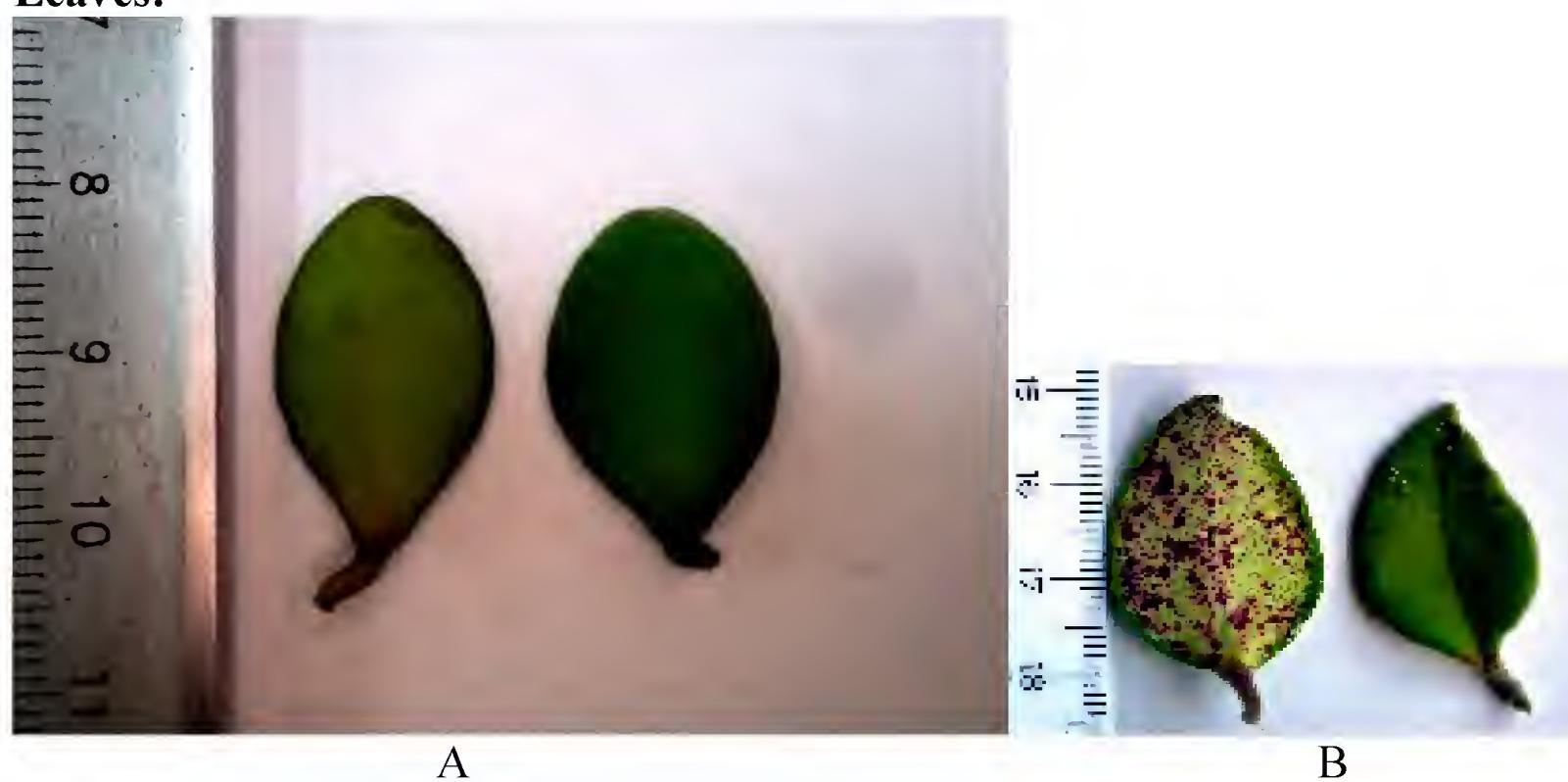


Fig. 8 (A) Ventral view of the left, without red patches as to *H. amorosoae*, dorsal view on the right without prominent central vein, succulent, 2.2 cm length, 1.2 cm width, 0.45 cm thick, (B) leaves of *H. amorosoae* (Green & Kloppenburg, 2014).

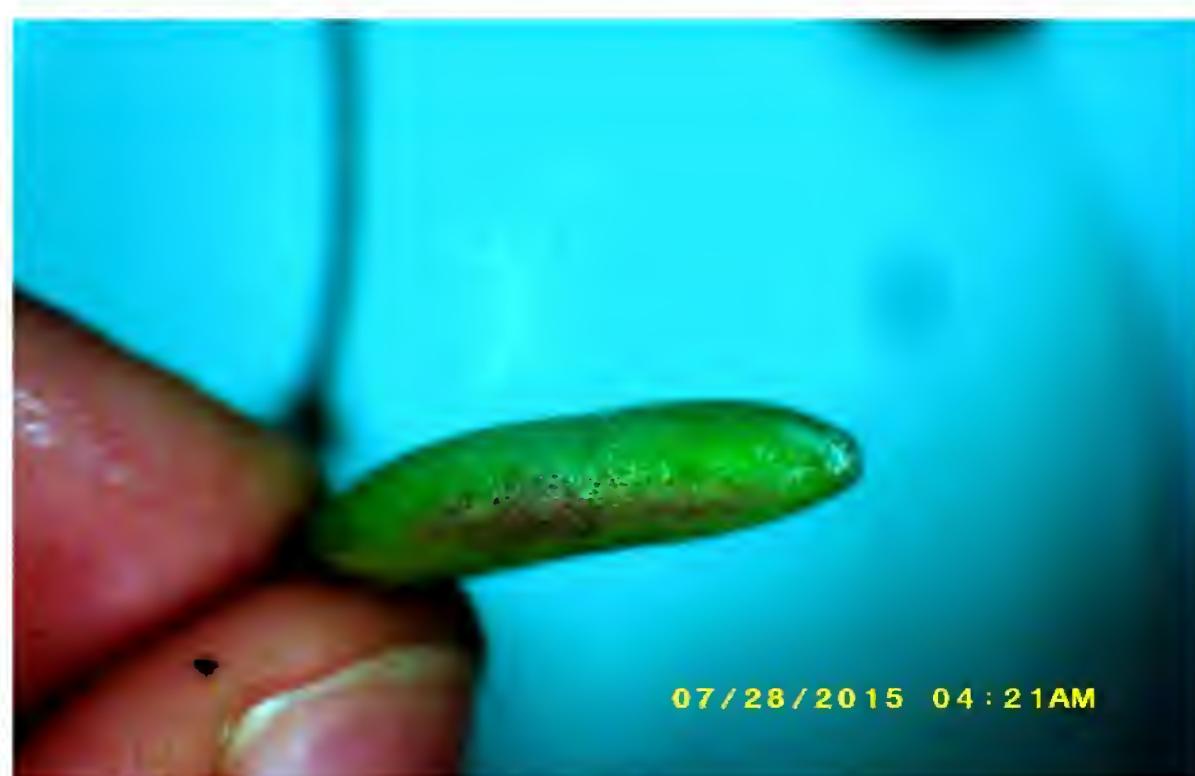


Fig. 9 Lateral view of the leaf 0.2-0.45cm thick and glamorous.



Peduncle: Peduncle 0.5-1.5 cm long x 0.02 cm in diameter, the surface is glabrous, with enlargement near the rachis but not as twice as in *H. amoroasoae*.



Fig. 10 Lateral view of peduncle (Lateral view).

Fig.11 Pollinium (130x).

Pollinia

Length	0.15 mm
Widest	0.05 mm

Retinacula

length	0.05 mm
shoulder	0.03 mm
waist	0.02 mm
hip	0.03 mm
ext.	0.02 mm

Pollinia inner end Type: T/R or T **Translator Type:** fb/cw

Retinacula Type: HU or S

Acknowledgment

Gratitude to Dr. Victor Amoroso and Dr. Florfe Acma for the deposition of the type material at Central Mindanao University, University Herbarium, Philippines.

Reference: T. Green, and D. Kloppenburg. 2014. New Hoya species (Apocynaceae-Asclepiadaceae) from Mindanao Island, Philippines. *Hoya*, 3 (2); 3-8.

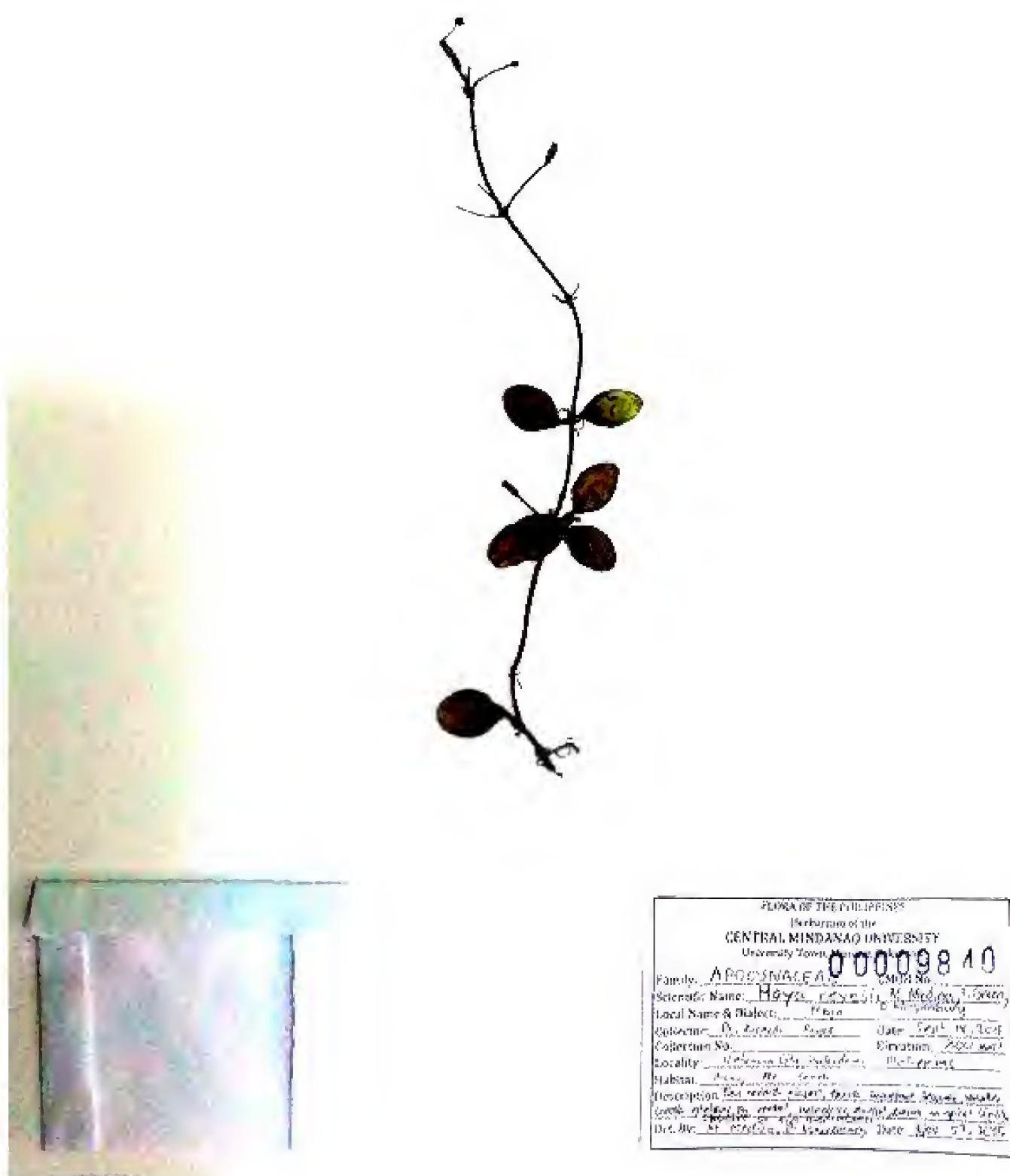


Fig. 12 Reduced copy of the Holotype sheet.

Hoya crassicaulis subsp. capazensis Kloppenburg 2016

Hoya crassicaulis subsp. capazensis Kloppenburg, subsp. nova, holotypus #46166 (UC) hic designatus. Found by Edano at Capaz, Panay Province, Pasol River, Philippines 2 Oct. 1925. This subsp. differs from the type (#14440 BO) namely in that the pollinia are 0.45 mm long versus 0.35 mm in the species also the retinaculum is very different in length and other details, here 0.45 mm long versus 0.35 mm in the sp. type, in addition the corolla here has more narrow lobes, and the coronal scales have outer apices turning down, among other differences. The type sheet was first labeled *Hoya merrillii* Schlechter then crossed out and labeled *Hoya incrassata* Warburg, however, it is unlike that species as for one the coronal lobes here are not boat shaped. In addition the leaves apices are not acuminate. Also the pedicels here are 2 cm long versus 1.5-1.7 cm in the type, conforming more closely with *Hoya crassicaulis*.



Top view of the flower as above the coronal lobes exceed the corolla sinuses which are deeply cut.

Corolla: Corolla is deeply cut. Central collar below is thickened, outside granulose inside pubescent.

Sinus - apex	0.35 cm
Sinus - sinus	0.17 cm
Apex - center	0.50 cm
Widest	0.30 cm

Corona: keeled center, inner lobe dentate outer lobe sub-acute, turned down slightly, dorsal keeled.

Apex – apex	0.30 cm
Apex – center	0.35 cm
Widest	0.15 cm

Foliage: Elliptic, glabrous, base obtuse to subcordate, apex acute, 5.5 – 14.5 cm long x 0.39 – 5.5 cm wide.

Not like the type !



Pollinium enlarged about 165x.

Pollinia are long and somewhat narrow with truncated inner ends. Retinacula is relatively long and narrow.

Pollinia

length	0.45 mm
widest	0.14 mm

Retinaculum

length	0.22 mm
shoulder	0.08 mm
waist	0.04 mm
hip	0.07 mm
extensions	0.06 mm

Translators

length	0.09 mm
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Caudicle bulb 0.05 mm

Caudicle: C

Translator/caudicle: ? unusual

Pollinia inner ends: T

Retinacula type: E

Comparison of species and this subspecies

Subspecies (# 46166 UC)

Corona

Sinus - apex	0.35 cm
Sinus - sinus	0.17 cm
Apex - center	0.50 cm
Widest	0.30 cm

Species (#14440 BO)

Sinus - apex	0.38 cm
Sinus - sinus	0.25 cm
Apex - center	0.50 cm
Widest	0.34 cm

Pollinarium

Pollinia

length	0.45 mm
widest	0.14 mm

length	0.35 mm
Widest	0.14 mm

Retinaculum			
length	0.22 mm	length	0.15 mm
shoulder	0.08 mm	shoulder	0.08 mm
waist	0.04 mm	waist	0.05 mm
hip	0.07 mm	hip	0.06 mm
extensions	0.06 mm	ext.	0.02 mm

Red above show major differences: In addition the coronal outer lobe configurations are different, with this subspecies the ends turn down.

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Found as a climbing plant on tree in the forest, at low elevation, Flower, white –brownish color.

Below a reduced copy of the type sheet. Sent by UC Jepson Herbaria, Univ. of Calif. Berkeley, USA

